July 9, 2008

Captain Richard J. Duncan, USMC
Joint Interoperability Test Command
Ft. Huachuca, Arizona

Dear Captain Duncan:

This letter states that the IBM's PPC architecture based POWER5 and POWER6 family of Server products have been tested using Red Hat's RHEL5.2 enterprise server editions for IPv6 conformance and, to the best of our knowledge, are complying with the DoD standard for an IPv6 capable Advanced Server, as outlined in the August 1, 2007 version of DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0. Specifically, all compliance tests have been performed on PPC architecture based POWER5 and POWER6 machines using RHEL5.2 server edition.

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IBM System p 550 Express (Power 550 Express) (POWER6)
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IBM System p5 560Q Express
IBM System p 570 Express (Power 570 Express) (POWER6)
IBM System p5 570
IBM System p5 575
IBM System p5 595
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The following required RFCs as indicated under the "Base Requirements" in section 2 of the August 1, 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are

intended to be compliant when running on the above mentioned hardware with RHEL5.2:

* RFC 2460 Internet protocol v6 (IPv6)
    - Operate with the default minimum Path MTU size of 1280 octets
    - Support a minimum Path MTU Of 1500 to allow for encapsulation.
* RFC 4443 Internet control message protocol (ICMPv6)
* RFC 2461 Neighbor discovery for IPv6
* RFC 1981 Path MTU Discovery for IPv6
* Provide manual or static configuration of its IPv6 Interface addresses
* RFC 2462 IPv6 Stateless Address Auto-configuration (SLAAC)
    - Ability to disable section 5.5 in RFC 2462
    - Link-local address configuration and duplicate address detection (DAD) MUST NOT be
disabled.
* RFC 3315 DHCPv6
    - One relay level supported
    - Single IA_NA in response packet
* RFC 4291 IPv6 Addressing Architecture
* RFC 4007 Scoped Address Architecture
* RFC 4193 Unique Local IPv6 Unicast Addresses
* RFC 2710 Multicast Listener Discovery for IPv6
* RFC 3810 MLDv2, Multicast Listener Discovery Version 2

The following required RFCs as indicated under the "Connection Technology Requirements" in
section 2 of the August 1, 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products
Version 2.0 are intended to be compliant when running on the above mentioned hardware with
RedHat's RHEL5.2:

* RFC 2464, Transmission of IPv6 packets over Ethernet networks
* RFC 2472 IPv6 over PPP

The following required RFCs as indicated under the "IPSec Requirements" in section 2 of the August
1 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are
intended to be compliant when running on the above mentioned hardware with RedHat's RHEL5.2:

*RFC 4301 Security Architecture for the Internet Protocol
* RFC 4303 Encapsulating Security Payload (ESP)
* RFC 4305 Cryptographic Algorithm Implementation Requirements for ESP and AH
* RFC 4309 Using Advanced Encryption Standard (AES) CCM mode with IPSec ESP
* RFC 3041 Privacy Extensions for Stateless Address Auto configuration in   IPv6

The following required RFCs as indicated under the "IKEv2 Supports" in section 2 of the August 1,
2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are intended
to be compliant when running on the above mentioned hardware with RedHat's RHEL5.2:

* RFC 4306, Internet key exchange (IKEv2) Protocol
* RFC 4307, Cryptographic Algorithms for Use in IKEv2

The following required RFCs as indicated under the "Transition Mechanism" in section 2 of the
August 1, 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are

claimed to be compliant when running on the above mentioned hardware with the RedHat's RHEL5.2:

* RFC 4213 Transition Mechanisms for IPv6 Hosts and Routers [Dual Stack]

The following RFCs as indicated under the "Network Management" in section 2.7 of the August 1, 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are intended to be compliant when running on the above mentioned hardware with RedHat's RHEL5.2:

* RFC 4022 Management Information Base for TCP
* RFC 4113 Management Information Base for UDP
* RFC 4293 Management Information Base for IP

The following required RFCs as indicated under "Host/Workstation Profile" in section 3 of the August 1, 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are intended to be compliant when running on the above mentioned hardware with RedHat's RHEL5.2:

* RFC 3986 Uniform Resource Identifier (URI): Generic Syntax
* RFC 3596 DNS Extensions to support IPv6
* RFC 3484 Default Address Selection for IPv6
  - Default Policy Table

The following required RFCs as indicated under the "Advance Server Profile", "Network Application Services" in section 3 of the August 1, 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are intended to be compliant when running on the above mentioned hardware with RedHat's RHEL5.2:

* RFC 2616 HTTP
* RFC 4330 Simple Network Time Protocol (SNTP) version 4 for IPv4, IPv6, and OSI
* RFC 3315 Dynamic Host Configuration Protocol for IPv6 (DHCPv6)
* RFC 2821 Simple Mail Transfer Protocol (SMTP)
* RFC 2428 FTP Extensions for IPv6 and NATs; Server must be capable of transferring files with IPv6 and support Extended Data Port(EPRT) and Extended Passive (EPSV) commands
* Standard 9/RFC 959, File Transfer Protocol (FTP)

The following required RFCs as indicated under the "Application Programming Interface" in section 4 of the August 1, 2007 version of the DoD's IPv6 Standard Profiles for IPv6 Capable Products Version 2.0 are intended to be compliant when running on the above mentioned hardware with RedHat's RHEL5.2:

* RFC 3493, Basic Socket Interface Extension for IPv6
* RFC 3542, Advanced Sockets Application Program Interface (API) for IPv6

Best Regards,

Beth A. Zehnbauer
IBM Systems & Technology Group
Director, Power Systems Software & Solutions Executive